

### **ABOUT Microfluid**

We Microfluid process equipment customer focused engineering company that focused on helping various industries such as dairy, food & beverages, chemical, pharmaceuticals & biotech, home & personal care to develop and supply high precise replacement spare parts for high-pressure homogenizers and provide service contracts for various make with highly precise quality on reasonable cost.

Microfluid process equipment was founded in 2020 by highly qualified engineers, who have more than 25 years of experience in design & development and manufacturing of high-pressure homogenizers, high-pressure reciprocating plunger pumps, centrifugal pumps and many more products in manufacturing and process industries.



















### **QUALITY**

Microfluid process equipment understand the value of your expensive homogenizer machines, so highly precise spare parts must be recommended for high-pressure homogenizers.

The high-pressure homogenizer is much precise engineering equipment. We know the proper operation of this equipment in your process, and we understand the importance. That is why we deliver our experience and knowledge to make your process smoothly, using Microfluid's accurate spare parts.

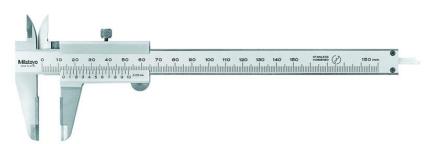
- Follow right engineering methods.
  - Maintain all types of GD&T
- Maintain surface roughness & hardness.
  - Maintain close tolerances.

# **QUALITY**

Microfluid process equipment used only highly accurate measuring instruments for inspections finished spare parts. We regularly calibrated instruments for precise results.

We maintained all types of GD&T parameters, surface roughness, hardness, and close tolerances for better performance.











# **PRODUCT GALLARY**



**APV Homo Valve Seat** 



**APV Homo Valve** 



**SPX Homo Valve Assembly** 



**APV Homo Valve Assembly** 



**SPX Homo Valve Seat** 



**SPX Homo Valve Pair** 

# **PRODUCT GALLARY**



Surface Roughness Values
Inspection
SPX Homo Valve Impact Head



Surface Roughness Values
Inspection
SPX Homo Valve Seat



SPX 10K Homogenizer Spare

Parts



SPX 10K Homogenizer Spare
Parts

# **PRODUCT GALLARY**





CMM Inspection APV Homogenizer Homo Valve (Impact Head & Valve Seat)





CMM Inspection SPX Homogenizer Homo Valve (Impact Head & Valve Seat)

#### **CUSTOMER FEEDBACK**

#### > Havmor Performance Certificate

From: Naranbhai Karamta
Sent: 22 April, 2021 3:20 PM

To: 'Parth Patel'

Subject: Performance Certificate - Havmor Ice Cream to Microfluid Process Equipment

Date: 19th April-2021

To,

Microfluid Process Equipment,

#### **Performance Certificate**

Havmor ice cream is a leading producer of ice creams, candy, cones and many other ice cream products.

We are using SPX flow technology high pressure homogenizer (Serial No.: J2-15-179, 5000 LPH Capacity & 235 Bar Pressure) for ice cream application.

We have purchased replacement spare parts, homogenizing valves and valve seats from M/s. Microfluid Process Equipment before six months ago.

We wanted to appreciate for the superb quality and excellent performance. We would like to inform you that we are getting outstanding performance of spare parts from last six months and we are very satisfied with the performance of spare parts and its quality.

Based on our experience we can say that no any other Indian manufacturer of spare parts of homogenizers can match the <u>Microfluid's terms of quality on very reasonable rate and</u> fast delivery.

We wish you all the very best for the future endeavour and business expansions.

Thanks & Regards NARANBHAI KARAMTA Manager Engg.



#### **APPLICATIONS**

#### **Dairy**

- Milk Pasteurized & Processing
- UHT Milk
- Milk for Yoghurt
- Yogurt Drinks
- Butter
- Cheese
- Desserts
- Ice-Creams
- Fermented Milk Products
- Flavoured Milk

#### Chemical

- Chemical Slurries
- Clay
- Paints
- Latex
- Polymers
- Lubricants
- Inks & Resins
- Rubber
- Dyes
- Cellulose Fibres
- Fertilizers



• Fruits Juices

Ketchup & Jam

Food & Beverages

Honey

- Jelly
- Pet Foods
- Vegetables & Foods
- Tomato Products
- Stretches
- Egg & Mayonnaise

#### Pharmaceuticals & Biotech

- Vaccines
- Syrup
- Tablets
- Yeast



#### **Home & Personal Care**

- Lotions
- Nail Varnish
- Hair Colorants
- Detergents
- Beauty Creams
- Shampoos
- Toothpastes



### INCREASE THE LIFE OF YOUR EQUIPMENT

- ✓ Regular preventive maintenance and replacement of worn spares parts can extend the life of your homogenizer.
- ✓ Having the right homogenizer spares guarantee the fast & effective operation of the machine.
- ✓ In time replacement of worn spares can reduce the operation cost and increase operational efficiency.
- ✓ Homogenizers spares should be manufacturer of highly integrated CNC machines.
- ✓ Spares parts has to be maintained with proper tolerance
  and geometrical dimensions & tolerances.
- ✓ Spares parts has to be maintained with proper hardness and surface roughness.

# **Homogenizing Valve / Chamber**

#### **Special Features**

- Chamber manufacturing from special grade forged steel.
- Homogenizing valve also supplied with impact ring, seats & impact head.
- Impact ring and seats manufacturing from special tungsten carbide materials.
- Impact valve manufacturer from hardened steel with tungsten carbide. Its special design can achieve high efficiency.







#### **Plungers**



**Ceramic Plungers** 



**Carbide Plungers** 



Colominia 6 Coating
Plungers

#### **Special Features**

- Available in various materials.
  - Ss304 with colominia 6 coating
  - Ss316 with colominia 6 coating
  - Solid ceramic
  - Solid tungsten carbide
- Microfluid maintain extremely good surface roughness values between 0.05 μm to 1 μm.
- Maintain hardness 70 HRC and above in colominia 6 and solid carbide plungers.
- Maintain all types of GD&T (straightness, concentricity, and all parameters) for long life of components and homogenizer machines too and also inspect on CMM machine.

Read more about GD&T

Read more about CMM

#### Valve & Valve Seats

#### **Special Features**

- Available in various materials.
  - o Ss304
  - o Ss316
  - Imported stellite (not Chinese)
  - Rex alloy
- Available different types of valves as per application requirements.
  - Poppet type valve assembly
  - Ball type valve assembly
- Provides hardened tungsten carbide ball.
- Appropriate hardness avoids early wear-tear in spare parts and decrease maintenance cost.



**Poppet Type Valve** 

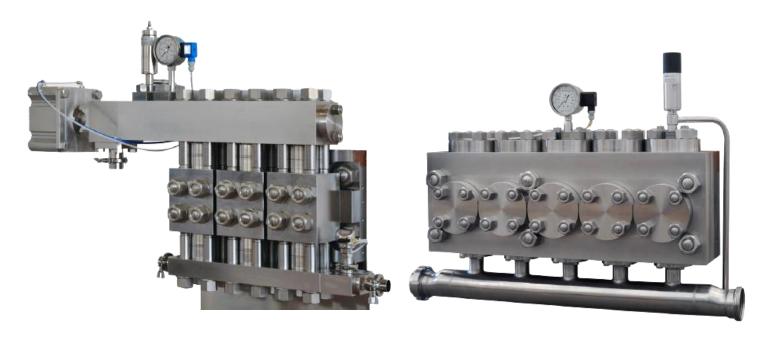


**Ball Type Valve** 



SPX Homogenizer
Valve Seat

# Cylinder Head / Fluid End / Compression Block



#### **Special Features**

- Available in various materials.
  - o SS304 / SS304 L
  - o SS316 / SS316 L
  - o Super duplex material
- Supply forged cylinder head. Forged material can handle high temperature and avoid early wear-tear and reduce maintenance cost.
- Inspected chemical compositions and ultra-sonic testing.
- Maintain all types of GD&T (straightness, concentricity, and all parameters) for long life of components and homogenizer machines too and also inspect on CMM machine.

Read more about GD&T

Read more

#### **Crank Shaft**



#### **Special Features**

- Crankshaft made from forged alloy steel.
- Crankshaft processed with hardened & ground and heattreated process.
- Surface roughness maintains below 0.4  $\mu m$  in pin are for long life of antifriction bearing.
- Raw materials inspected with chemical compositions and ultra-sonic testing process.
- Maintain all types of GD&T and PCD (pith circle diameter) for long life of components and homogenizer machines too and also inspect on CMM machine.
- Accurate maintained dimension crankshaft improves the life of the machine and also improve life of connected parts like connecting rod and antifriction bearings.

Read more about GD&T

Read more about CMM

# **Connecting Rod / Antifriction Bearings**



#### **Special Features**

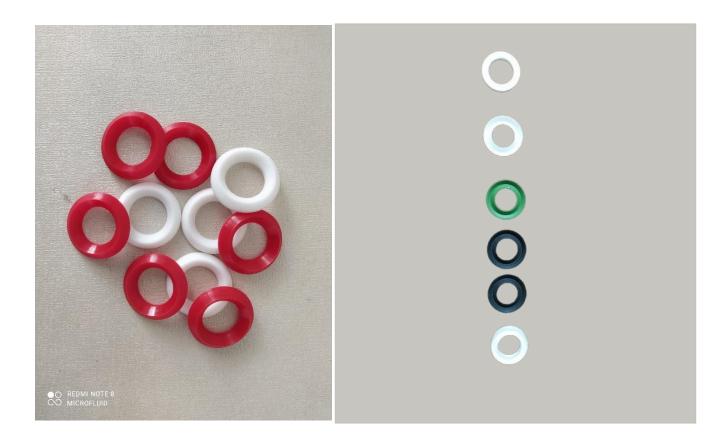
#### Connecting Rod:

- Provides forged & casting connecting rod.
- Provided with accurate dimensions with all GD&T inspections.

#### Antifriction Bearings:

- Provides with pure white-metal materials.
- Pure white-metal material reduces frictions and improve accuracy and long life of the components and connecting rods.

# **Plunger Seals**



#### **Special Features**

- Special food grade materials.
- Compatible with high temperature around 80°c to 90°c. (so, increase life of seals and reduce maintenance cost.
- Available in customizable sizes.
- Quick delivery.

# **Other Bought-out Items**



Oil Seal



Food Grade Gaskets



<u>O-rings</u>



<u>Diaphragm Type Homogenizer</u> <u>Pressure Gauges</u>



**Bearings** 



<u>Springs</u>

# Our Other Products



High-Pressure Homogenizers



**SS Centrifugal Pumps** 

# **Our Valuable Happy Clients**







# Microfluid Process Equipment

30, Darshan Industrial Park, Singarva, Odhav, Ahmedabad, Gujarat, India - 380038

+91 70168 65019

sales@microfluidprocess.com

www.microfuidprocess.com







